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Amendments To the Claims:

Please amend the claims as indicated.

1. (previously presented) A method for predictive recognition of errors in a manufacturing system, said method comprising the steps of:

archiving a plurality of error patterns that previously occurred in the manufacturing system, the archived error patterns created by statistical methods;

monitoring manufacturing system data in real-time; and

comparing the monitored data with the archived error patterns in real-time to predict imminent errors likely to occur in the manufacturing system.

2. (cancelled)

3. (currently amended) A method according claim 2 1, wherein the compressed information for the archived error patterns is achieved- compressed by statistical methods or data mining mechanisms.

4. (previously presented) A method according claim 1, wherein the comparing of the data is performed by data mining mechanisms.

5. (previously presented) The method according to claim 1, wherein the archived error patterns are automatically built by the monitored data using statistical methods or data mining mechanisms.

6. (cancelled)

7. (currently amended) The method according to claim 6 1, wherein the pre-specified monitored data are minimized by vertical or horizontal data confinement using structural information of the manufacturing system.

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8. (currently amended) A method according claim 1, further comprising storing the monitored data in a ring-puffer buffer.

9. (previously presented) A method according claim 1, wherein the monitored data are automatically read out components of the manufacturing system.

10. (previously presented) A method according to claim 1, further comprising triggering corrective actions.

11. (previously presented) A method according to claim 1, wherein the method is adapted for discrete or continuous or batch processes.

12. (currently amended) A computerized system for predictive recognition of errors in a manufacturing system, comprising:

a mechanism for archiving a plurality of error patterns that previously occurred in the manufacturing system, the archived error patterns created minimized by statistical methods;

a mechanism for monitoring manufacturing system data in real-time;

a ring buffer for storing the monitored data; and

a mechanism for comparing the monitored data with the archived error patterns in real-time to predict imminent errors likely to occur in the manufacturing system.

13. (previously presented) A system according claim 12, wherein the comparing of the data is performed by data mining mechanisms.

14. (currently amended) A system according to claim 12, wherein the archived error patterns are automatically built by from the monitored data using statistical methods or data mining mechanisms.

15. (cancelled)

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16. (currently amended) A device for predictive recognition of errors in a manufacturing system, comprising:

a mechanism for archiving a plurality of error patterns that previously occurred in the manufacturing system, the archived error patterns ~~created~~ compressed by statistical methods or data mining methods;

a mechanism for monitoring manufacturing system data in real-time;

      a mechanism for storing the monitored data in a ring buffer; and

a mechanism for comparing the monitored data with the archived error patterns in real-time to predict imminent errors likely to occur in the manufacturing system.

17. (previously presented) A device according to claim 16, wherein the device is a dedicated unit in a manufacturing environment.

18. (previously presented) A device according to claim 16, wherein the device is a decentral net component.

19. (previously presented) A device according to claim 16, wherein the device is a field device.

20. (previously presented) A device according to claim 16, wherein the device is a PLC.